

VIA UPS

Eric F. Pastor  
Pastor, Behling & Wheeler, LLC  
2201 Double Creek Drive, Suite 4004  
Round Rock, TX 78664

Re: Gulfco Marine Maintenance Superfund Site, Freeport, Texas  
Unilateral Administrative Order, CERCLA Docket No. 06-05-05A  
Draft Baseline Ecological Risk Assessment

Dear Mr. Pastor,

The Environmental Protection Agency (EPA) and the Texas Commission on Environmental Quality (TCEQ) have performed a review of the above referenced document dated February 4, 2011. The enclosed comments shall be incorporated in the Final Baseline Ecological Risk Assessment and copies provided to the notification list within thirty (30) days of receipt of this letter.

If you have any questions, please contact me at (214) 665-8318, or send an e-mail message to [miller.garyg@epa.gov](mailto:miller.garyg@epa.gov).

Sincerely yours,

Gary Miller, P.E.  
Remediation Project Manager

Enclosure

cc: Luda Voskov (TCEQ)

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## Comments

### Draft Baseline Ecological Risk Assessment (BERA), dated February 4, 2011

1. The Executive Summary shall mention that there was no food chain risks found (based on an earlier document, i.e., SLERA).
2. Page 11, Point 2 and page 26, Section 3.3.4: The text shall read wetlands and pond surface water instead of just wetlands surface water.
3. Page 12, point 3: A reference citation from US Fish and Wildlife Service shall be provided for the finding of no threatened and endangered species.
4. Page 18, first complete paragraph, last sentence, and Section 3.3, first paragraph, fourth sentence: Reference samples are described as those that exhibit similar environmental conditions, except for the presence of Site-related COPECs. In the first paragraph under Section 3.3, reference location concentration exceedances of COPECs are mentioned. Clarification shall be included in the first paragraph under Section 3.3 to indicate that reference samples are not containing site-related COPECs. This relates also to the sentence on page 29, Section 4, the paragraph under the Points, the last sentence in the paragraph.
5. Page 20, Analytical Chemistry Results, fourth sentence: The words “EPA’s requested comparison with” shall be removed.
6. Page 22, last paragraph, second sentence: Specific clarification shall be included for the SEM/AVS ratios for the site regarding that an expectation of potential bioavailability (i.e., except for EWSED08) is indicated due to SEM/AVS ratios exceeding 1.0 (as worded on Table 8); there shall be analogous consistency on page 30 (mentioning an exception of EWSED08). And, on page 30, Section 4.2, first paragraph, a sentence shall be added to mention the finding for SEM/AVS ratios as related to potential bioavailability in addition to the finding about excess SEM/foc indicating low bioavailability. Discussion shall be included to integrate these contrasting findings.
7. Page 31, first complete paragraph, second sentence: Since there was a finding from the MLR statistical analysis of associations that there was a significant negative association (indicating a potential effect) for zinc in the wetland sediment for *Leptocheirus plumulosus*, clarification shall be included regarding analysis limitations and any implications (see also Sections 6 and 7).
8. Page 31, bottom of the page, continuing onto page 32: The words “As previously mentioned” shall be removed, the words “site COPEC concentrations” shall be replaced with the words “any one physical and/or chemical parameter” and, on the next page, the word “metals” shall be replaced with “contaminants either inorganic or anthropogenic organic”.

9. Page 32, Section 4.4: It shall be clarified in the paragraph at the bottom of the page that the surface water was for the wetland area.
10. Page 33, bottom of the page: It is not appropriate for a compound to be called a COPEC (which seems to imply site-related contaminant) if it appears at reference locations especially given that previously in the document (page 18), it was stated that the difference between a reference and site sample location was that there were no site-related COPECs at the reference location. Further consistency in terminology and clarification (to clarify that for a reference location any contaminants measured are not site-related) shall be included in the document. See top of page 35 as well as page 29.
11. Page 34, Section 5.1.3, first paragraph, last sentence: Clarification shall be included for parameters considered for the statement made that the site and reference areas are similar in physical-chemical characteristics for both the soil and sediment areas.
12. Page 39, Section 5.3.3: A potential explanation shall be provided for why Artemia testing failure (of controls) occurs at 96 hours, but not 48 hours nor 24 hours. Artemia was selected because of salinity tolerance and hardiness to harsh conditions, so it is unclear what is meant regarding fragility of the test organism.
13. Page 40, Section 5.3.4, second paragraph: Explanations shall be provided for why sub-lethal and lethal effects caused by physical parameters of the sediment samples would likely be less evident in the shorter test.
14. Page 40, Section 5.3.4, second paragraph: Regarding the last sentence of this paragraph, clarification shall be provided regarding whether it was the case that the outcome of a shorter-duration test was higher survival percentages and dry weight values among the replicates for both site samples and reference location samples.
15. Page 40, Section 5.3.4, third and fourth paragraphs: Further clarification shall be provided regarding applicability to the Gulfco site.
16. Table 1: For the Measures of Effects column, one row identifies specifically the contaminants, but the other 2 rows do not; consistency with the first row in specifically identifying the contaminants shall be provided.
17. Table 1: Given that fish are listed in Table 1, and the measure of effect for fish is exceedance of surface water benchmarks, there shall be a footnote using the language in the last sentence on the bottom of page 32 (Section 4.4).

18. Table 1: For the Measures of Exposure column, one row specifically identifies the contaminants, but the other rows do not; consistency with the first row in specifically identifying the contaminants shall be provided.
19. Table 1 and the text regarding the assessment endpoint for fish: Page 27 shall clearly address the endpoint for fish in the discussion of exceedances of surface water benchmarks as related to whether there is habitat for fish in the wetland and pond (intermittent) surface water (as is done at the bottom of page 32). And, to be consistent with the formatting of the other sections the headings (Ecological Setting, Analytical Chemistry Results, and Toxicity Results) on page 27 shall be bolded.